REPORT

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Problem Description

My colleagues and I usually crave to play indigenous games like "Amp£", Ludo etc. Though some of these original games are still available, we find it challenging to play them because of our tight schedules; hence we cannot carry them around. Thus, I decided to make the *Snake and ladder* game digital so it could be played anywhere without going through the hustle of moving the tangible one around.

Motivation

I chose to solve this problem because the *Snake and ladder* game is internationally known, played by both the old and the young and, it's my favourite as well.

Tools

1. Pygame module using Python programming language[1].
2. Snake and ladder image and other images [2]
3. Sounds[3]

Approach

The central technology I used in this project is Pygame. With Pygame, I scaled the snake and ladder image to 700x700 px and the locator image to 70x70 px to enable me to track the location of the score at any point in time. Since this game is the simulation of the real game, I have made provision for only one player. However, in the actual game, it is played by multiple players. I used object-oriented programming, and I created a class called Ludo and below are the methods under the class.

The constructor: It creates default attributes when an instance of the class is created.

Run(): This method contains the main loop which allows the user to interact with the game.

get_die(), get_image() and soundplay(): These methods load images of Ludo dice, appropriate pictures and sound respectively, to enhance user experience.

Scale (): This method scales the images to desired sizes.

display(): This displays different pictures based on the position of the located, and it's responsible for creating the GUI of the game.

Elevate (): This informs the user whether they have been promoted to a higher status or a lower position by displaying specific images and sounds.

above(): This method notifies the user to play a particular number when his/her current location is between 95 and 100.

Congr (): This method congratulates the user for winning.

References

1. Pygame by the Pygame Community from https://www.pygame.org/
2. Ludo Images from http://hugohd.com/editor/
3. Other images from https://www.flaticon.com/
4. Sounds from http://soundbible.com/

Caution: The Snake bite may scare you, make sure you do not throw your laptop away.